

Claims

What is claimed is:

1. A method of selecting and excluding video segments in a video stream to be viewed by a viewer comprising:

placing markers in said video stream that indicate the position of a division between said video segments of said video stream;

5 placing tags in said video stream that indicate content of each video segment;

using video preference information of said viewer to select and exclude video segments by comparing said tags with said video preference information of said viewer;

inserting alternate video segments that replace video segments that have been excluded by said viewer.

2. The method of claim 1 wherein said step of placing tags within said video stream comprises placing key words, within said video stream, relating to the content of said video stream and comparing said key words with said preference information to select and exclude video segments.

3. The method of claim 1 wherein the step of placing tags within said video stream comprises placing tags manually by use of a computer within said video stream.

4. The method of claim 1 wherein the step of placing tags within said video stream comprises placing tags automatically by use of voice recognition techniques that indicate said content of said video stream.

5. The method of claim 1 wherein said step of placing markers within said video stream comprises automatically placing markers in said video stream based upon change of scenes.

6. The method of claim 1 wherein said step of selecting and excluding said video segments within said video stream comprises comparing key words that are input by said viewer with key words that have been placed within said video stream.

7. The method of claim 1 wherein said step of placing tags within said video stream comprises placing information from an Electronic Programming Guide into said video stream.

8. The method of claim 1 wherein said step of placing said tags into said video stream further comprises placing said tags in a vertical blanking interval within said video stream.

9. The method of claim 1 wherein said step of placing said markers into said video stream further comprises placing said markers in a vertical blanking interval within said video stream.

10. The method of claim 1 wherein said step of excluding said video segments comprises eliminating said excluded video segment in said video stream and proceeding to a selected video segment.

11. The method of claim 1 wherein said step of excluding said video segments comprises selecting said alternate video that replaces said excluded video segment.

12. The method of claim 1 wherein said step of excluding said video segments further comprises displaying a blank slate during an excluded video segment.

13. The method of claim 1 wherein said step of selecting and excluding video segments in a video stream further comprises selecting and excluding video segments in video games.

14. A method of excluding video segments in a video stream to be viewed by a viewer comprising:

placing markers in said video stream that indicate the position of a division

between said video segments of said video stream;

placing tags in said video stream that indicate content of each video stream;

using video preference information of said viewer to exclude video segments by comparing said tags with said video preference information of said viewer;

inserting alternate video segments that replace video segments that have been excluded by said viewer.

15. A method of selecting and excluding video segments in a video stream to be viewed by a viewer comprising:

placing markers in said video stream that indicate the position of a division between said video segments of said video stream;

5 placing tags in said video stream that indicate content of each video stream;

storing said video content at said viewer's premises in local storage;

using video preference information of said viewer to select and exclude video segments by comparing said tags with said video preference information of said viewer;

10 downloading said selected video segments from said video content stored in said local storage for viewing by said viewer.

16. A method of selecting and excluding video segments in a video stream to be viewed by a viewer comprising:

placing markers in said video stream that indicate the position of a division between said video segments of said video stream;

5 placing tags in said video stream that indicate content of each video stream;

using video preference information of said viewer to select and exclude video segments by comparing said tags with said video preference information of said viewer;

placing key words within said video stream that relate to the content of said video stream and comparing said key words with said preference information to select and exclude
10 video segments.

17. A method of selecting video segments in a video stream to be viewed by a viewer comprising:

placing markers in said video stream that indicate a the position of a division between said video segments of said video stream;

5 placing tags in said video stream that indicate content of each video stream;
using video preference information of said viewer to select video segments by comparing said tags with said video preference information of said viewer;

placing key words within said video stream that relate to the content of said video stream and comparing said key words with said preference information to select video segments.

18. A method of excluding video segments in a video stream to be viewed by a viewer comprising:

placing markers in said video stream that indicate the position of a division between said video segments of said video stream;

5 placing tags in said video stream that indicate content of each video stream;
using video preference information of said viewer to exclude video segments by comparing said tags with said video preference information of said viewer;

placing key words within said video stream that relate to the content of said video stream and comparing said key words with said preference information to exclude video
10 segments.

19. A system for selecting and excluding video segments in a video stream to be viewed by a viewer comprising:

an encoder that encodes said video stream with tags and markers to generate an encoded video stream;

5 a set-top box that receives said encoded video stream and separates said tags and said markers from said encoded video stream to generate an un-encoded video stream;

a video database, coupled to said set-top box, that stores said un-encoded video stream and generates a selected video stream;

10 a comparator, coupled to said set-top box, that receives said tags and said markers and viewer preferences and compares said tags with said viewer preferences to generate pointers, that point to locations of video segments in said video database, and that select and exclude said video segments from said video database to generate said selected video stream.

20. The system of claim 19 further comprising:

a personal video recorder coupled to an input of said set-top box that filters said video stream to provide said video segments to be viewed by said viewer.

21. The system of claim 21 wherein said set-top box further comprises:

a video blanking interval decoder that separates said tags and said markers from said encoded video stream.

22. The system of claim 19 wherein said set-top box further comprises:

a filter/switch that uses comparison data to select and exclude said un encoded video stream.

23. The system of claim 19 wherein said tags comprise content data relating to said video segment.

24. The system of claim 19 wherein said tags comprise rating information of said video segment.
25. The system of claim 19 wherein said markers are encoded as analog data in said video stream to generate said encoded video stream.
26. The system of claim 19 wherein said markers are encoded as digital data in said video stream to generate said encoded video stream.
27. The system of claim 19 wherein said tags are encoded as analog data in said video stream to generate said encoded video stream.
28. The method of claim 19 wherein said tags are encoded as digital data in said video stream to generate said encoded video stream.
29. The system of claim 19 wherein said markers are inserted into said video stream to indicate the division between video segments by changes in flesh tone within said video stream.
30. The system of claim 19 wherein said markers are inserted into said video stream to indicate the division between video segments by changes in audio levels within said video stream.
31. The system of claim 19 wherein said markers are inserted into said video stream to indicate the division between video segments by changes in light levels within said video stream.
32. The system of claim 19 wherein said markers are inserted into said video stream to indicate the division between video segments by changes in color within said video stream.
33. The system of claim 19 wherein said markers are inserted into said video stream to indicate the division between video segments by applying voice recognition software to said video stream.

34. The system of claim 19 wherein said markers are inserted into said video stream to indicate the division between video segments by changes in music within said video stream.

35. The system of claim 19 wherein said markers are inserted into said video stream to indicate the division between video segments by changes in scenery within said video stream.

36. The system of claim 19 wherein said video segments in said video stream comprise a real-time signal that is sent to said set-top box at a viewer's premises.

37. The system of claim 19 wherein said video segments in said video stream comprise a delayed signal that sent to said set-top box at a viewer's premises.

38. The system of claim 19 further comprising a viewer personalized remote control that transmits said video preference information to said system and receives information from said system.

39. A system for selecting and excluding video segments in a video stream to be viewed by a viewer comprising:

a personal video recorder coupled to an input of said set-top box that filters said video stream to provide said video segments to be viewed by said viewer;

an encoder that encodes said video stream with tags and markers to generate an encoded video stream;

a set-top box that receives said encoded video stream and separates said tags and said markers from said encoded video stream to generate an un-encoded video stream;

a video database, coupled to said set-top box, that stores said un-encoded video stream and generates a selected video stream;

a comparator, coupled to said set-top box, that receives said tags and said markers and viewer preferences and compares said tags with said viewer preferences to generate pointers,

that point to locations of video segments in said video database, and that select and exclude said video segments from said video database to generate said selected video stream.

40. The system of claim 39 wherein said comparator selects video segments in a video stream to be viewed by a viewer.

41. The system of claim 39 wherein said comparator excludes video segments in a video stream to be viewed by a viewer.

42. A system for selecting one of an encoded regular broadcast video stream and an encoded alternate video stream comprising:

a video blanking interval decoder that separates said tags and said markers from said encoded regular broadcast video stream;

a comparator, coupled to said video blanking interval decoder, that receives said tags and said markers and viewer preferences and compares said tags with said viewer preferences to select and exclude said video segments;

a storage device, coupled to said comparator, that stores said viewer preferences of said viewer;

a filter/switch, coupled to said comparator and said video blanking interval decoder, that uses comparison data to generate a request signal for said alternate video segments;

a video-on-demand system, located at a headend, that receives said request signal for said alternate video segments and sends said alternate video segments to said filter/switch.

43. The system of claim 42 further comprising a video content provider that generates said regular broadcast video stream and said alternate video stream comprising:

a video stream source that generates multiple video sources;

a controller that generates control signals;

5 a switcher, coupled to said controller, that receives said control signals from said controller and generates said broadcast video stream and said alternate video stream.

44. The system of claim 43 wherein said video stream source comprises studio cameras that generate video streams.

45. The system of claim 43 wherein said video stream source comprises a video tape bank.

46. The system of claim 43 wherein said video stream source comprises a receiver that receives a remote video stream from a remote source.

47. The system of claim 43 further comprising:

a marker generator that generates markers;

a computer that generates custom tag information;

voice recognition software, coupled to said computer, that generates said custom

5 tag information;

a remote control that generates said custom tag information;

a keyboard that generates said custom tag information;

tag storage that stores said custom tag information.

48. The system of claim 47 further comprising:

a video blanking interval encoder, coupled to said marker generator and said

computer and said remote control and said keyboard and said voice recognition software and said tag storage, that receives said markers and said tags and said broadcast video stream and said

5 alternate video stream from said switcher, and that encodes said broadcast video stream and said alternate video stream with said markers and said tags to generate an encoded broadcast video stream and an encoded alternate video stream that are sent to a headend.

49. The system of claim 43, wherein said alternate video stream comprises an alternate selection of video that replaces excluded video segments.

50. The system of claim 42 further comprising an alternate video slate generator, coupled to said filter/switch, that generates an alternate video slate signal that is applied to said filter/switch.

51. The system of claim 42 wherein a back channel transmits said request signal for said alternate video segments.

52. The system of claim 50 wherein said alternate video slate signal comprises a screen saver.

53. The system of claim 50 wherein said alternate video slate signal comprises wall paper.

54. The system of claim 50 wherein said alternate video slate signal comprises advertisements.

55. The system of claim 50 wherein said alternate video slate signal comprises standard displays.

56. The system of claim 51 wherein said back channel comprises an asymmetric system that uses standard telecommunications connections.

57. The system of claim 50 wherein said back channel comprises a cable.

58. The system of claim 42 further comprising a television monitor, coupled to said filter/switch, that receives said video segments from said filter/switch and displays said video segments.

59. The system of claim 42 wherein said comparator selects video segments in a video stream to be viewed by a viewer

60. The system of claim 42 wherein said comparator excludes video segments in a video stream.

61. A method of selecting and excluding video segments in a video stream to be viewed by a viewer comprising:

placing markers in said video stream that indicate the position of a division
between said video segments of said video stream;
5 placing tags in said video stream that indicate content of each video stream;
using video preference information of said viewer to select and exclude video
segments by comparing said tags with said video preference information of said viewer;
inserting alternate video segments that have been selected by said viewer to
replace video segments that have been excluded by said viewer.

62. The method of claim 61 wherein said step of inserting said viewer preferences comprises
inserting key words that are entered by said viewer that are compared to said tags to select and
exclude said video segments.